

# SCOTLAND'S POPULATION

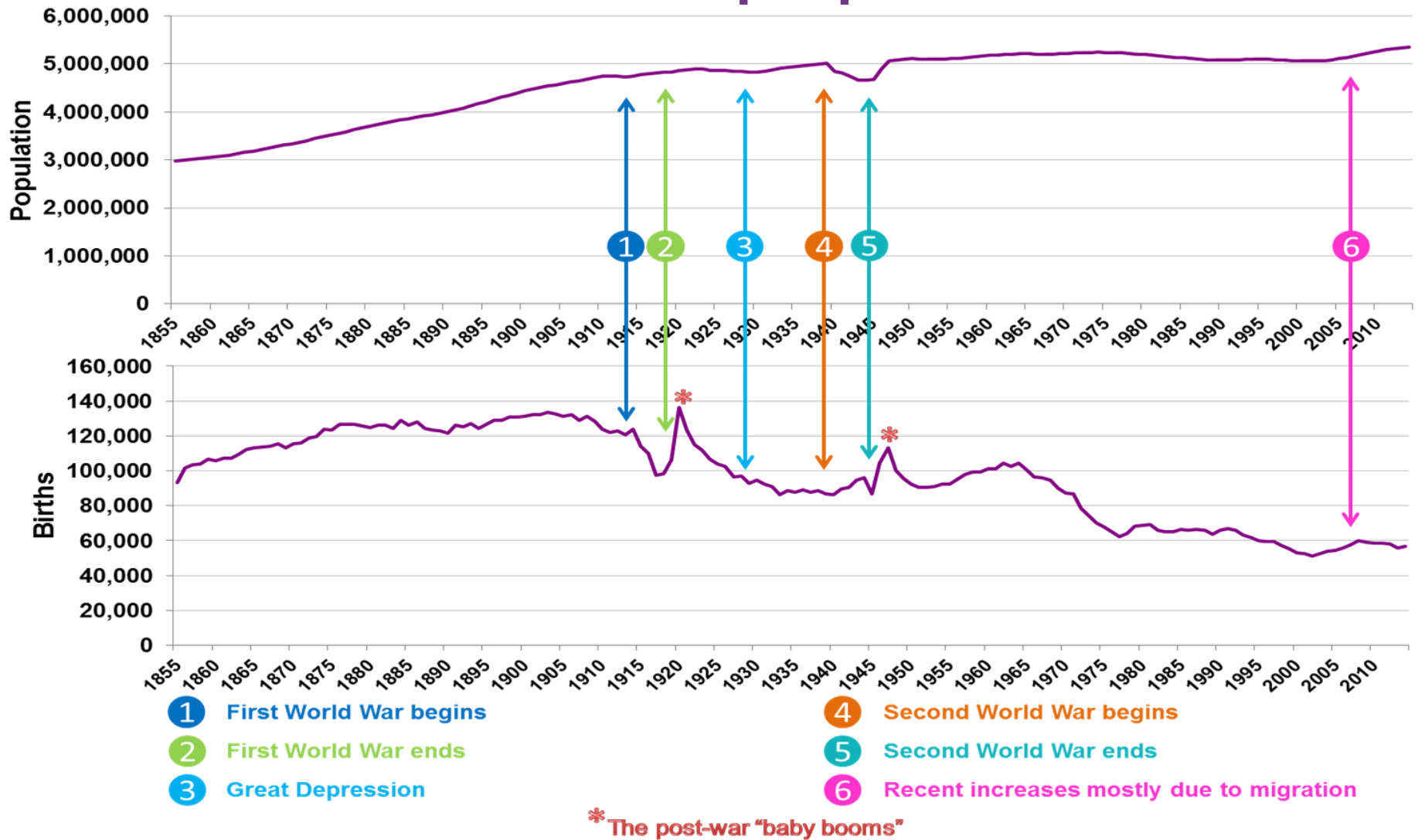
## Past, Present and Future

### #ScotPAMS15

Kirsty MacLachlan, Head of Demographic Statistics  
Population and Migration Statistics Conference  
Edinburgh Zoo

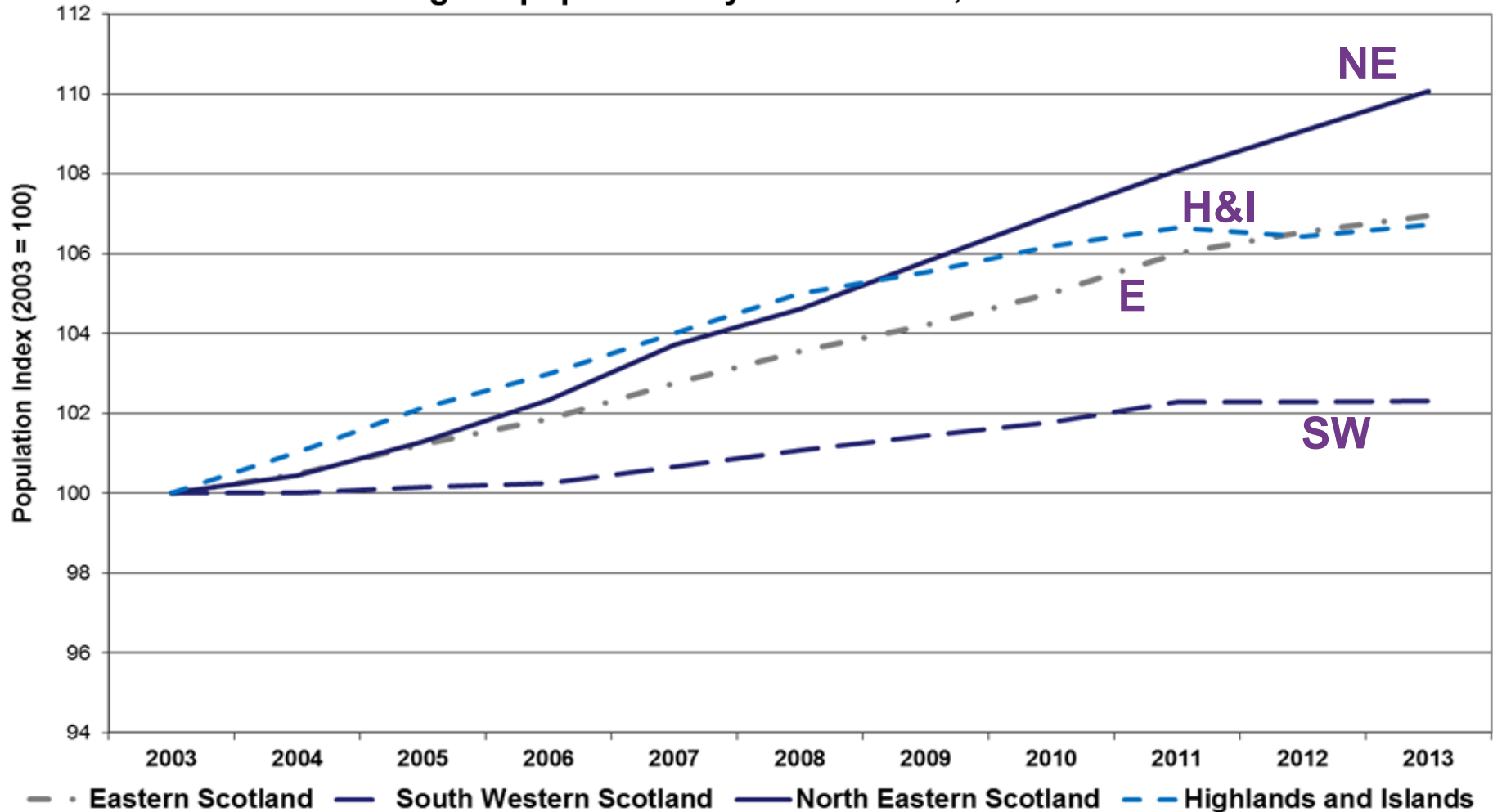
1 December 2015

# Scotland's population



# Population change by area

Change in population by NUTS2 area, 2003 - 2013



Q. The most common names of babies now are Jack and Sophie. What were the most common names of babies in the late 1850s?

A : John and Mary

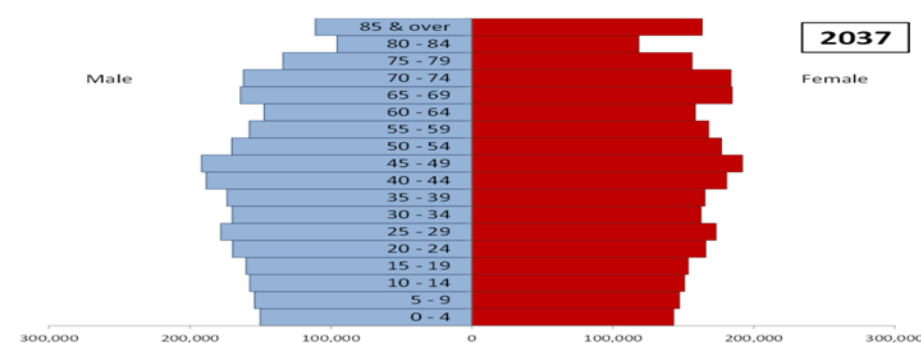
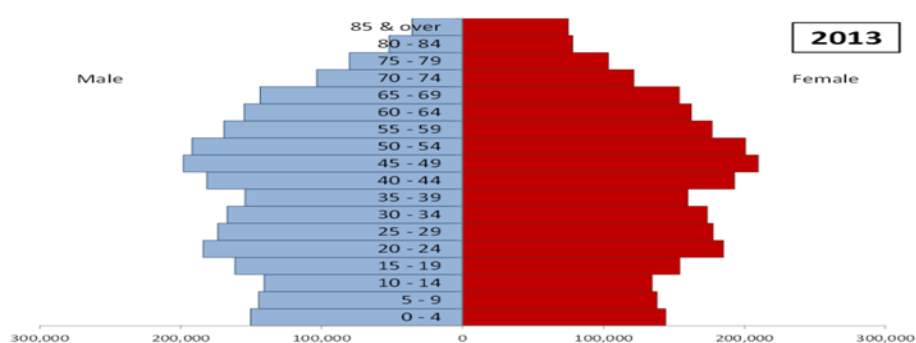
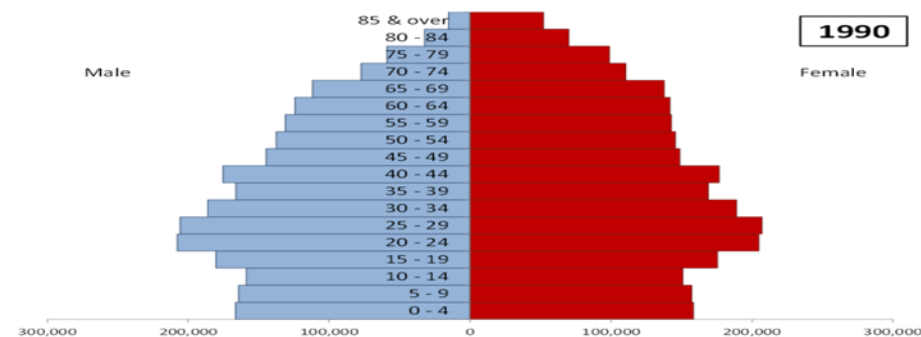
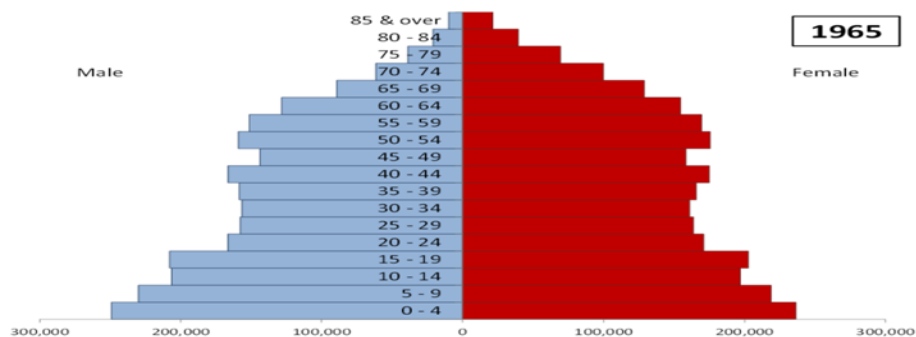
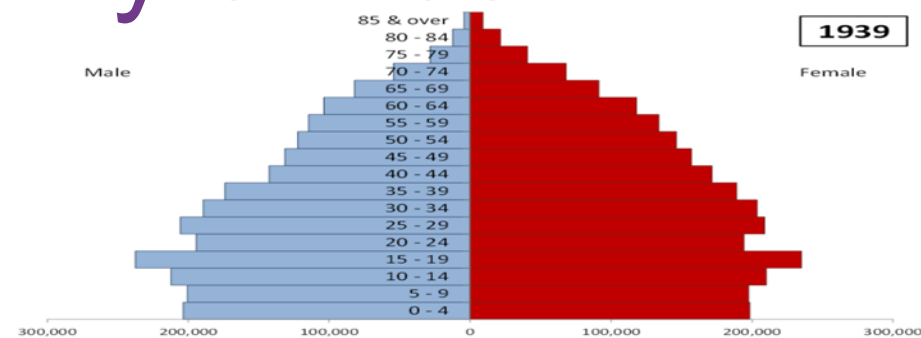
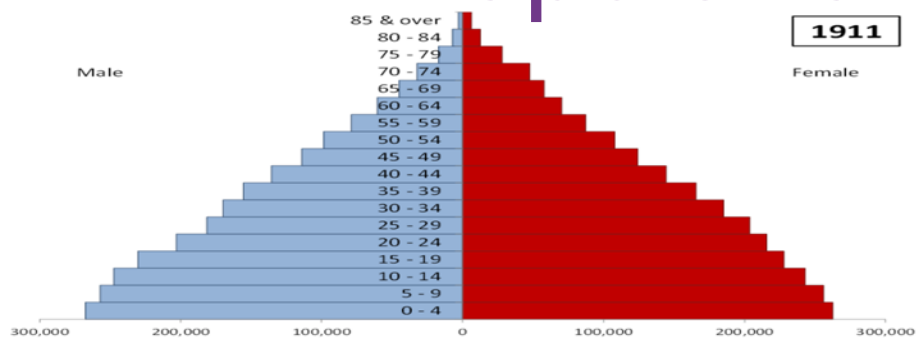
B : Edward and Victoria

C : William and Maud

# A typical Scot

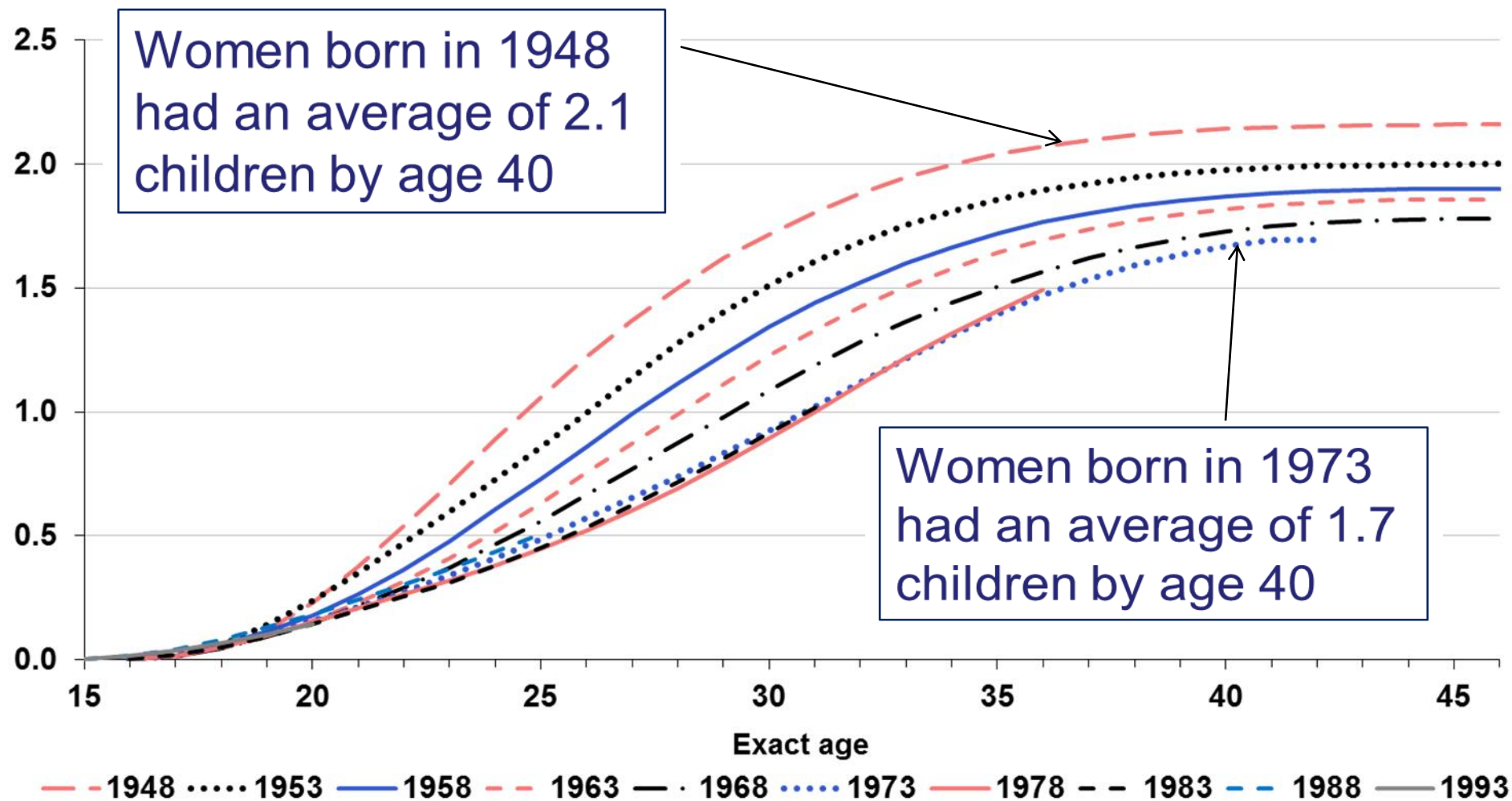
	Late 1850s	Present Day
<b>Name</b>	John Smith or Mary Macdonald	Jack Smith or Sophie Brown
<b>Chance of dying before 1<sup>st</sup> birthday</b>	1 in 8	1 in 267
<b>No of people to a room</b>	Almost 2 to a room	Each has 2 rooms to live in
<b>Chance of being married in 20s</b>	1 in 3	1 in 8
<b>Life expectancy at birth</b>	40 (John) and 44 (Mary)	77 (Jack) and 81 (Sophie)

# Population “Pyramids”



# Average achieved family size

Children per woman



Q. What proportion of  
Scotland's population is aged  
60 or over?

A. 14%

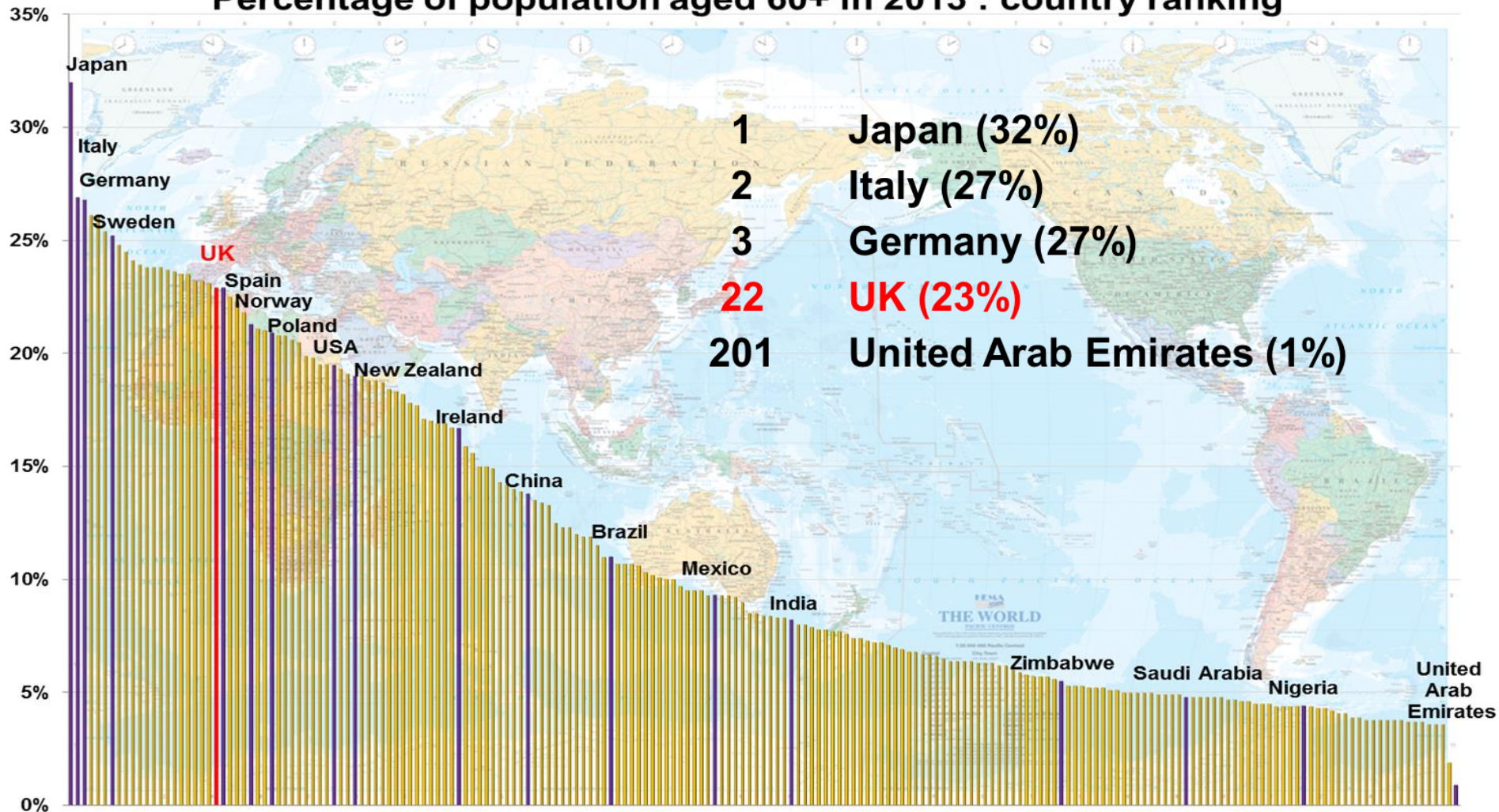
B. 24%

C. 34%



# Population aged 60+

Percentage of population aged 60+ in 2013 : country ranking



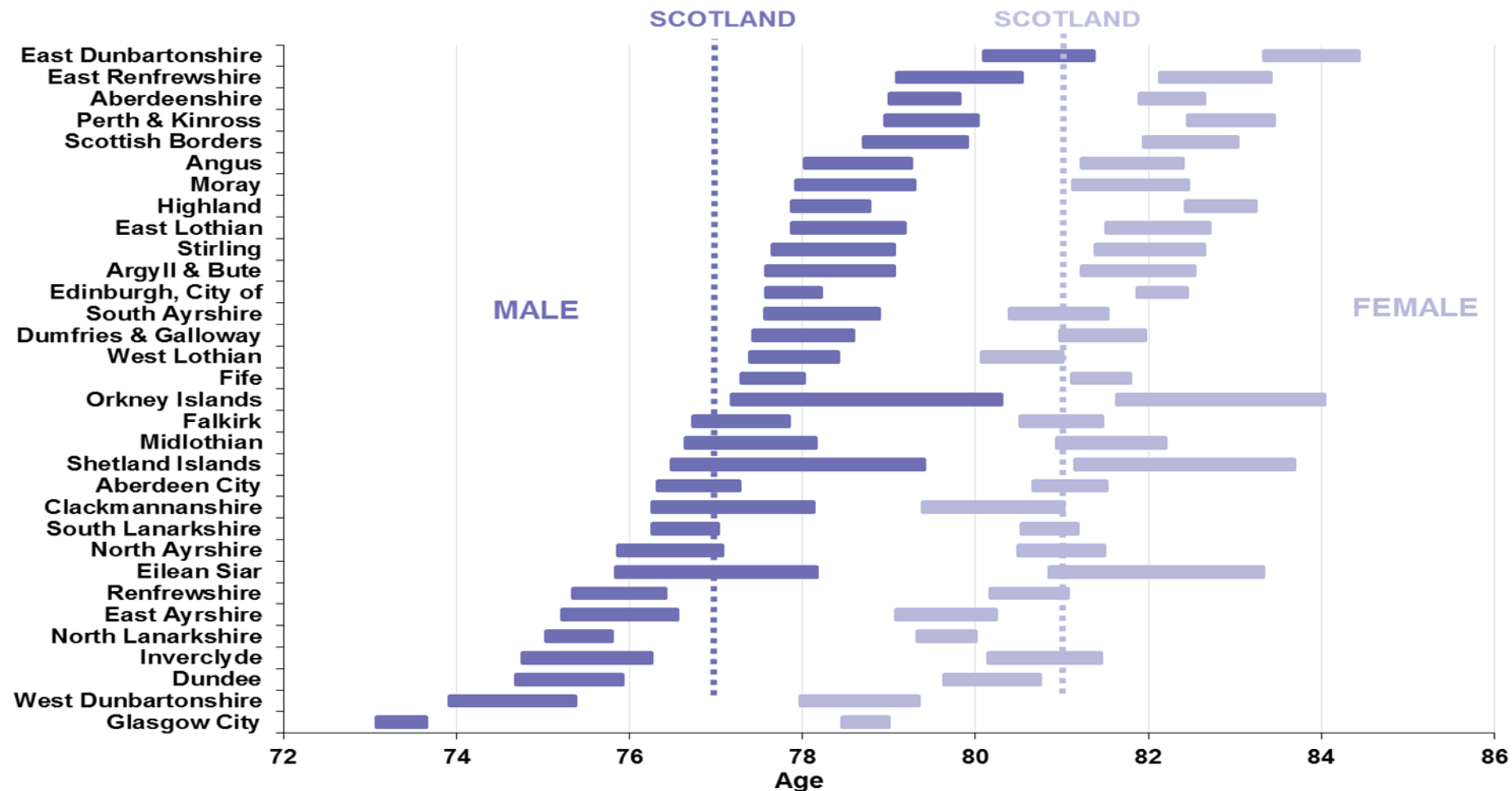
# Deaths

The 'Three big killers' :  
cause of just under half of all deaths in 2014

- Cancer – 29% of all deaths
- Coronary Heart Disease – 13% of all deaths
- Stroke – 8% of all deaths
- Respiratory – 12% of all deaths

# Life Expectancy

Life expectancy at birth, 95 per cent confidence intervals for council areas, 2012-2014 (males and females)



Q. What was reported at the census as the most common type of household in Scotland?

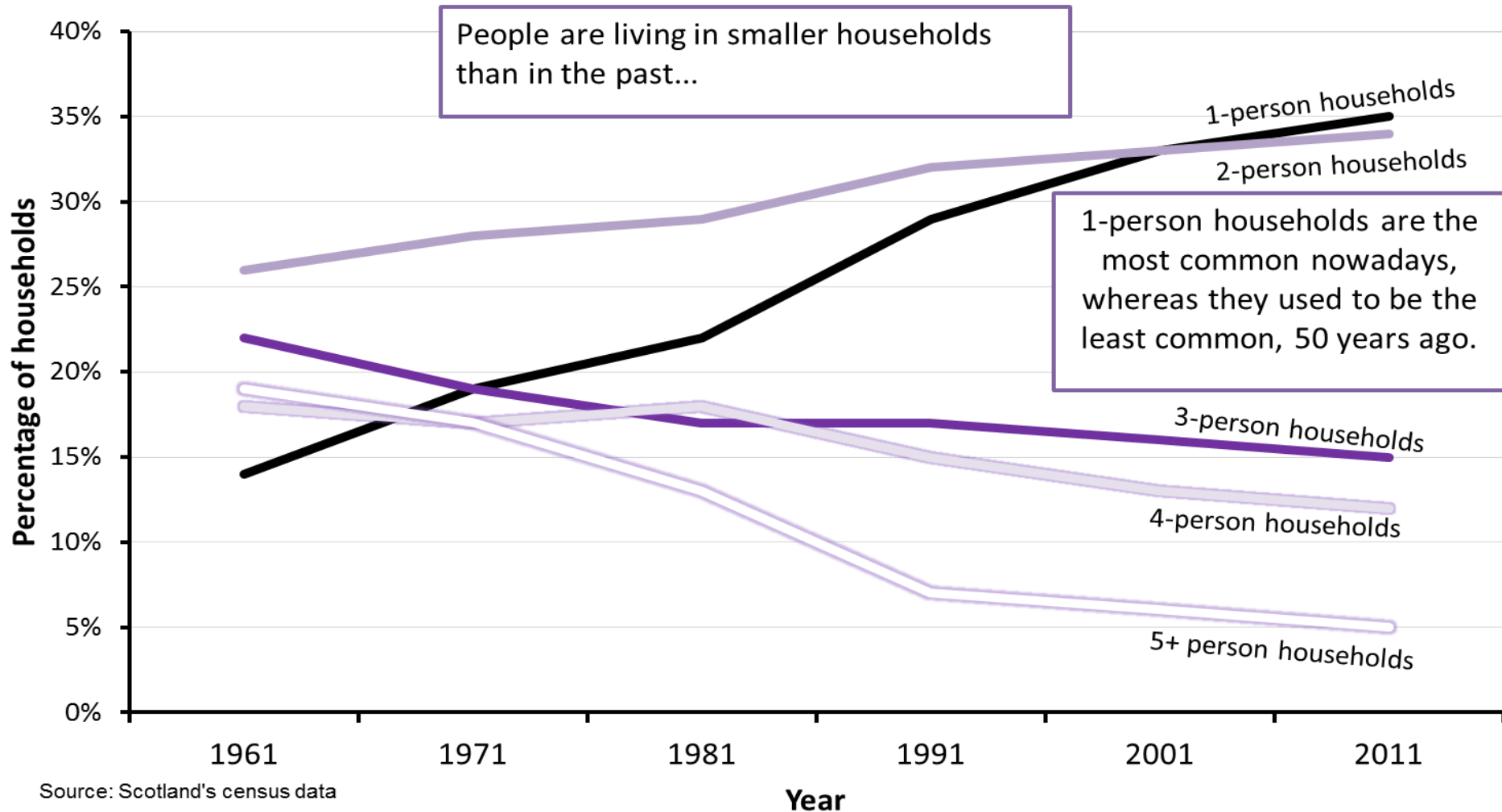
A : One person

B : Three people

C : Five people

# Types of household

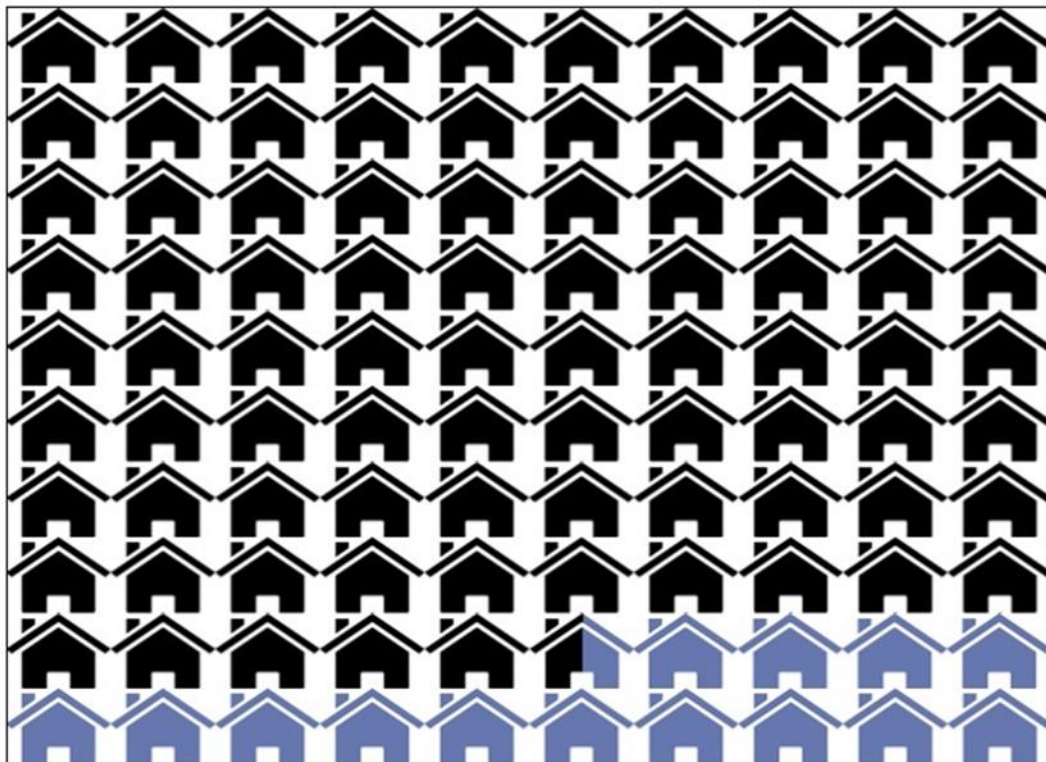
## Change in household types in Scotland, 1961 to 2011





# Number of households

17 per cent increase in households  
in Scotland from 2012 to 2037



Existing households  
in 2012



New households  
formed by 2037

Q. There are 910 people aged  
100 years or more just now.  
How many are there projected to  
be in 25 years' time ?

A : 2 times as many

B : 4 times as many

C : 6 times as many

# Projected Population of Scotland (2014-based) #ScotPAMS15

Esta Clark, Head of Population and Migration Statistics Branch  
Population and Migration Statistics Conference  
Edinburgh Zoo

1 December 2015



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## Number of elderly Scots 'to increase by 85% by 2039'

29 October 2015 | [Scotland](#)



The number of Scots aged 75 or over is predicted to increase by 85% by 2039.

## Scotland set for 100,000 immigrants over next decade

SCOTLAND'S population is set to soar to record levels over the next decade as tens of thousands of immigrants arrive in the country.

By [GREG CHRISTISON](#)  
 PUBLISHED: 00:01, Fri, Oct 30, 2015



New figures predict there will be 5.51 million people living north of the border by 2024

Nearly 100,000 people from outside the UK are expected to make Scotland their home.



## Scotland facing massive rise in pensioner population



The number of over 75s will double by 2039.

## Migration is biggest factor in Scotland's rising population

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The National Records of Scotland have issued figures today which show that the country's population is set to rise by 7% over the next 25 years.

# Presentation overview

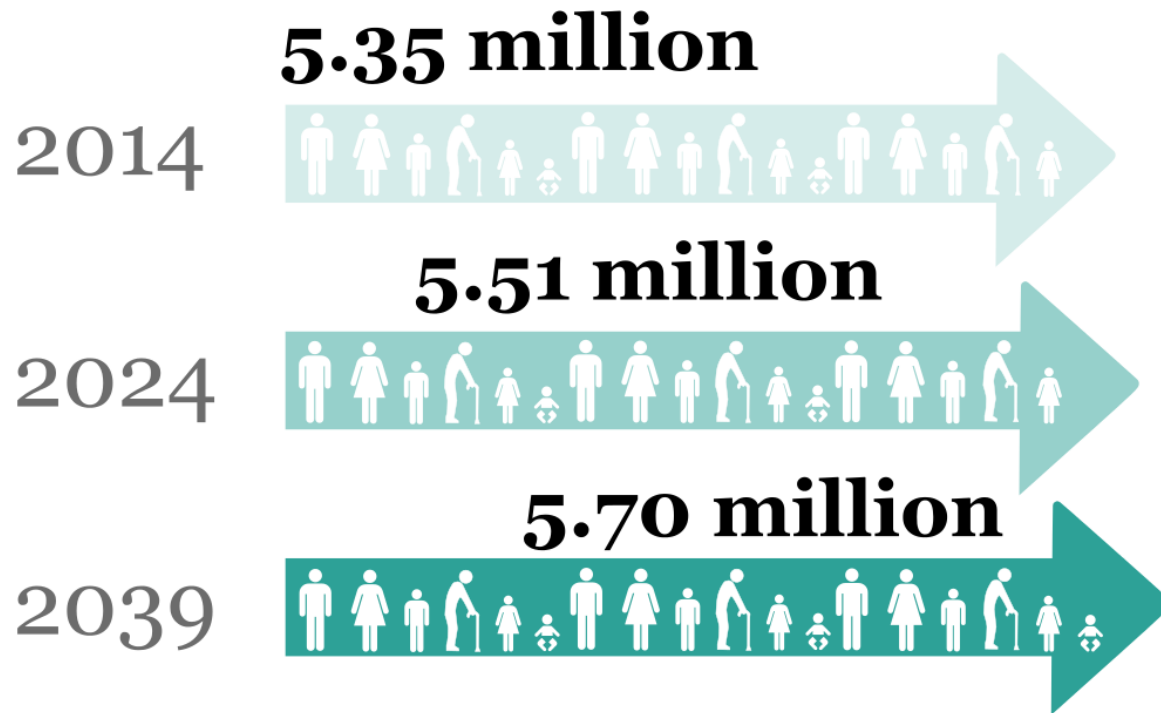
- Projection results for Scotland
- Comparison with the rest of the UK
- Variant projections
- Update on Sub-National Population Projection plans
- Questions?

# Population projections: how do we do them?

- Start with mid-year estimate of population (rolled forward from the 2011 Census)
- Identify trends
  - Births
  - Deaths
  - Migration
- Project these trends forwards
- Take no account of policy changes until they affect trends

# 2014-based population projection results

# Scotland's population is projected to increase



Over the next 10 years Scotland's population is projected to rise by 3% (170,000 people). Over the next 25 years it is projected to rise by 7% (350,000 people).

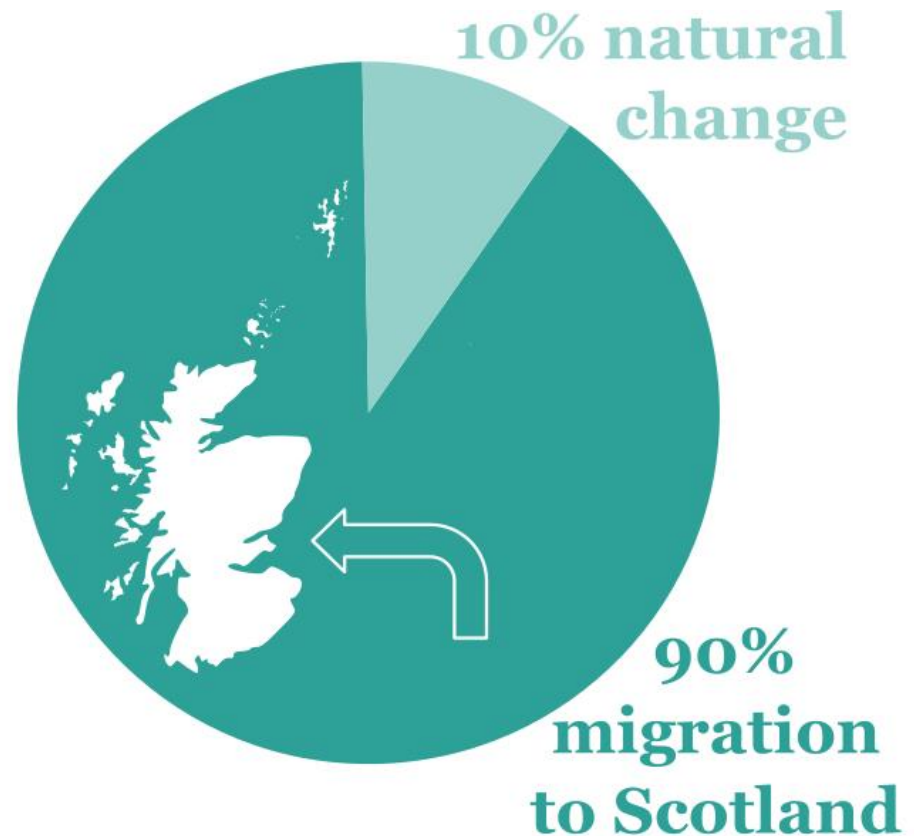
# Why is Scotland's population projected to rise?

2014-2024

Over the next decade, **90% of the projected population change is due to migration** into Scotland

57% from international migration and 32% from the rest of the UK

**10% of the projected change is due to natural increase** (more births than deaths)





# Misinterpretation by press

heraldscotland  
The Herald sundayherald

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## Migrants to outstrip Scottish births by nine to one

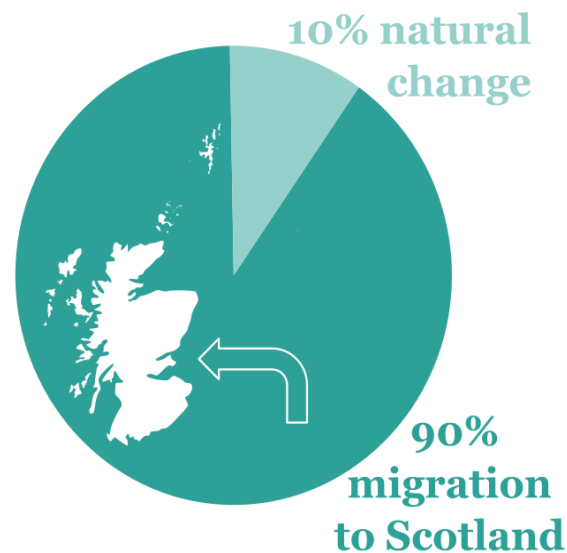


Scotland can expect more migrants like Miroslava Karchanova, 7, seen here at Cuthbertson Primary School in Govanhill Glasgow which has been commended for the good work it does in integrating and educating the children of migrant workers.

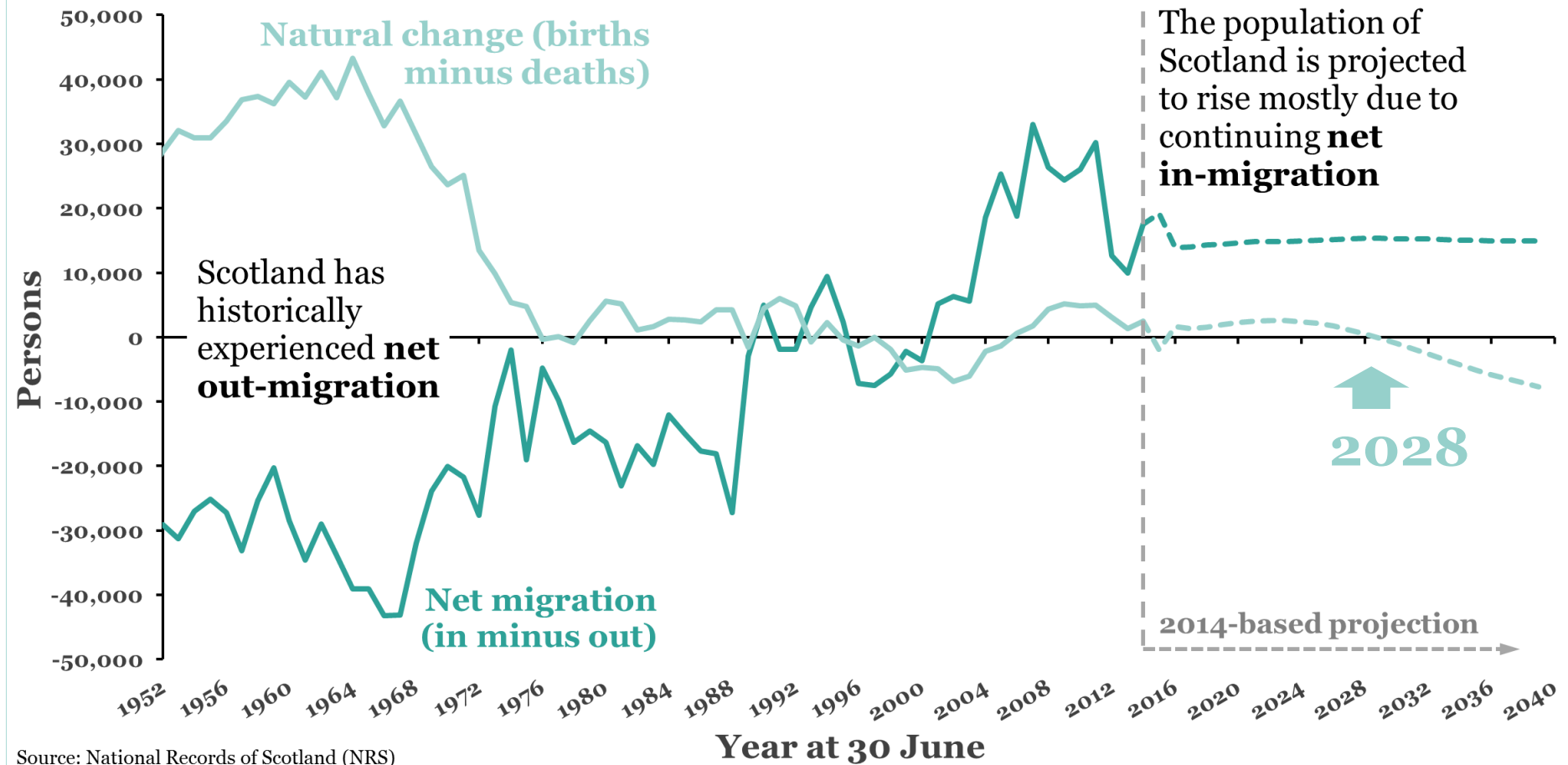


Jody Harrison, Reporter / Friday 30 October 2015 / News

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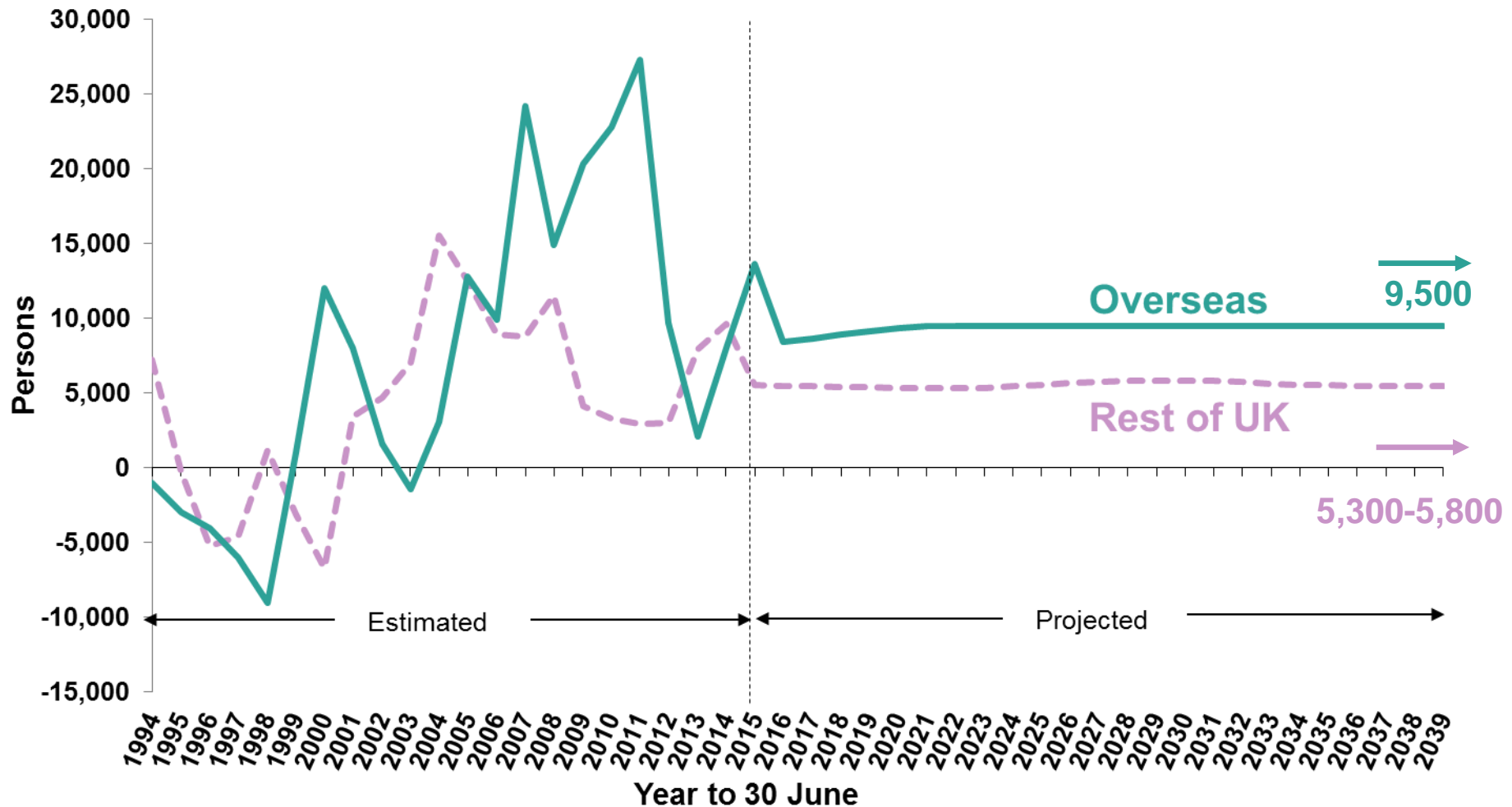
# Why is Scotland's population projected to rise?



Source: National Records of Scotland (NRS)

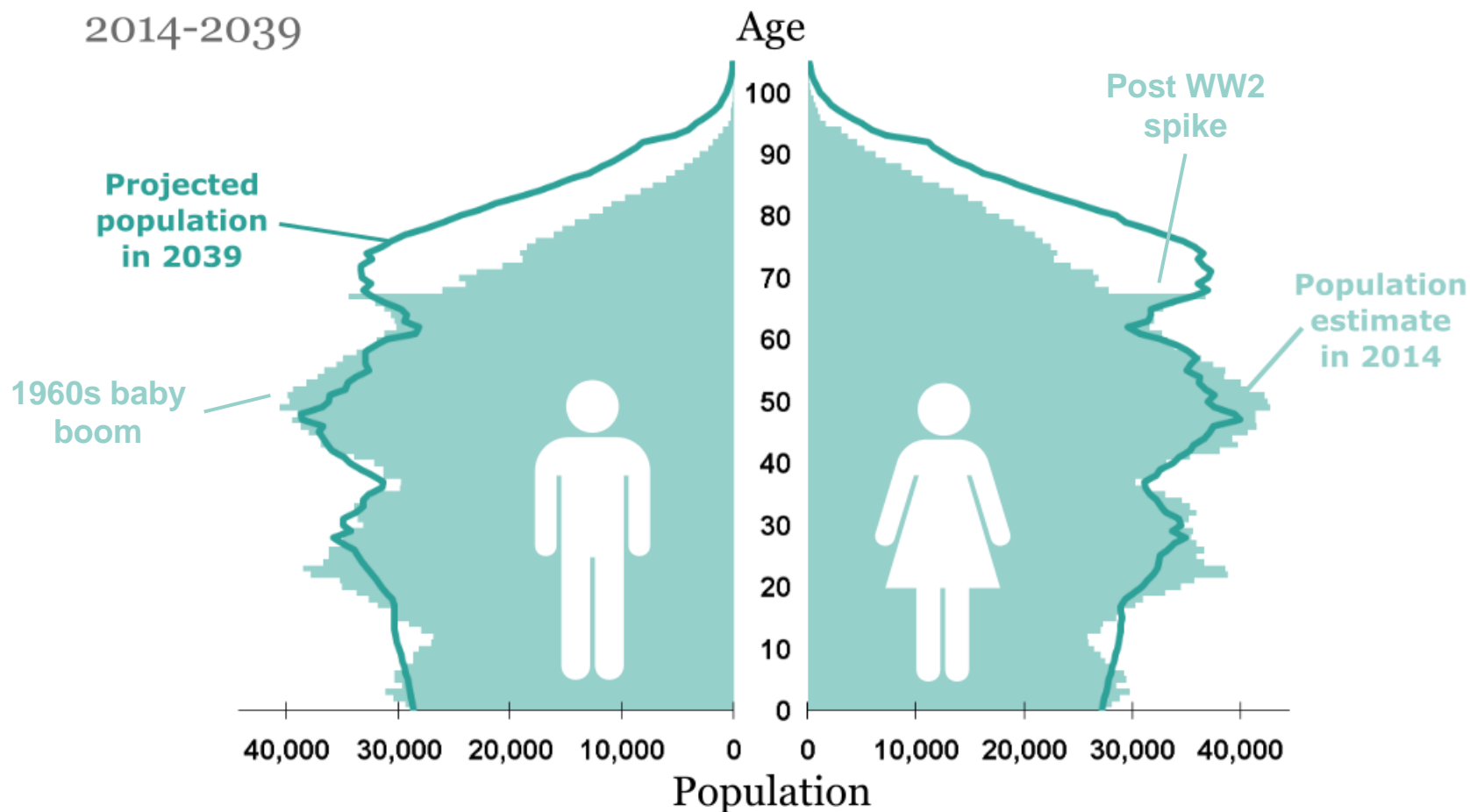


# Estimated and projected net migration with the rest of the UK and overseas, 1994-2039



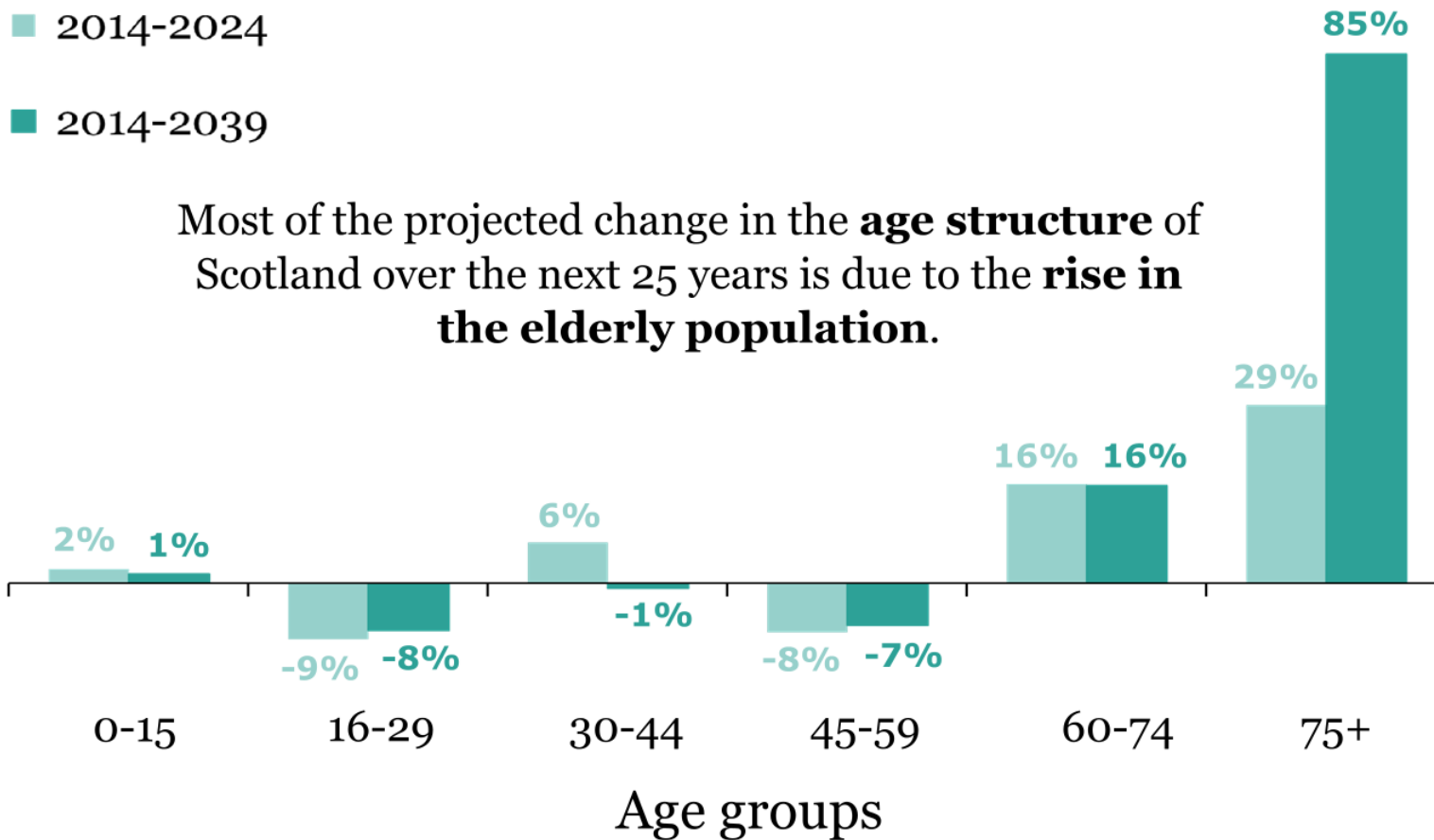
As well as showing trends in the total population, the projections also show that Scotland's population is projected to age

# Scotland's population is ageing



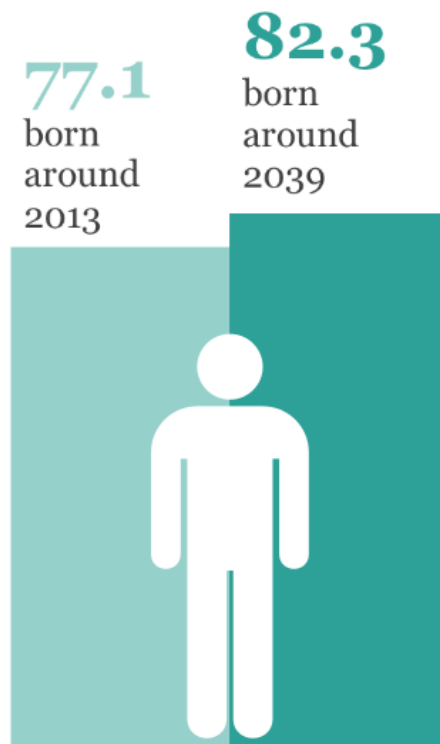
The number of people aged 75 and over is projected to increase by 85% (370,000 people) over 25 years. Meanwhile, the population of working age is projected to increase by 1% (40,000 people) over this period

# The elderly population is growing

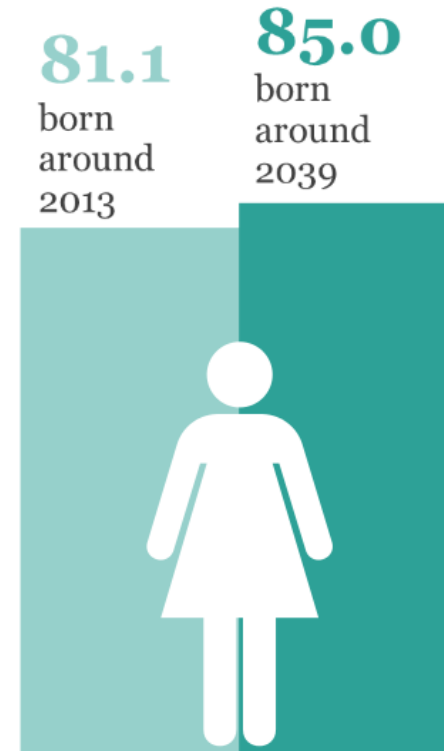


# Projected change in life expectancy at birth, 2013-2039

Life expectancy at birth



Male

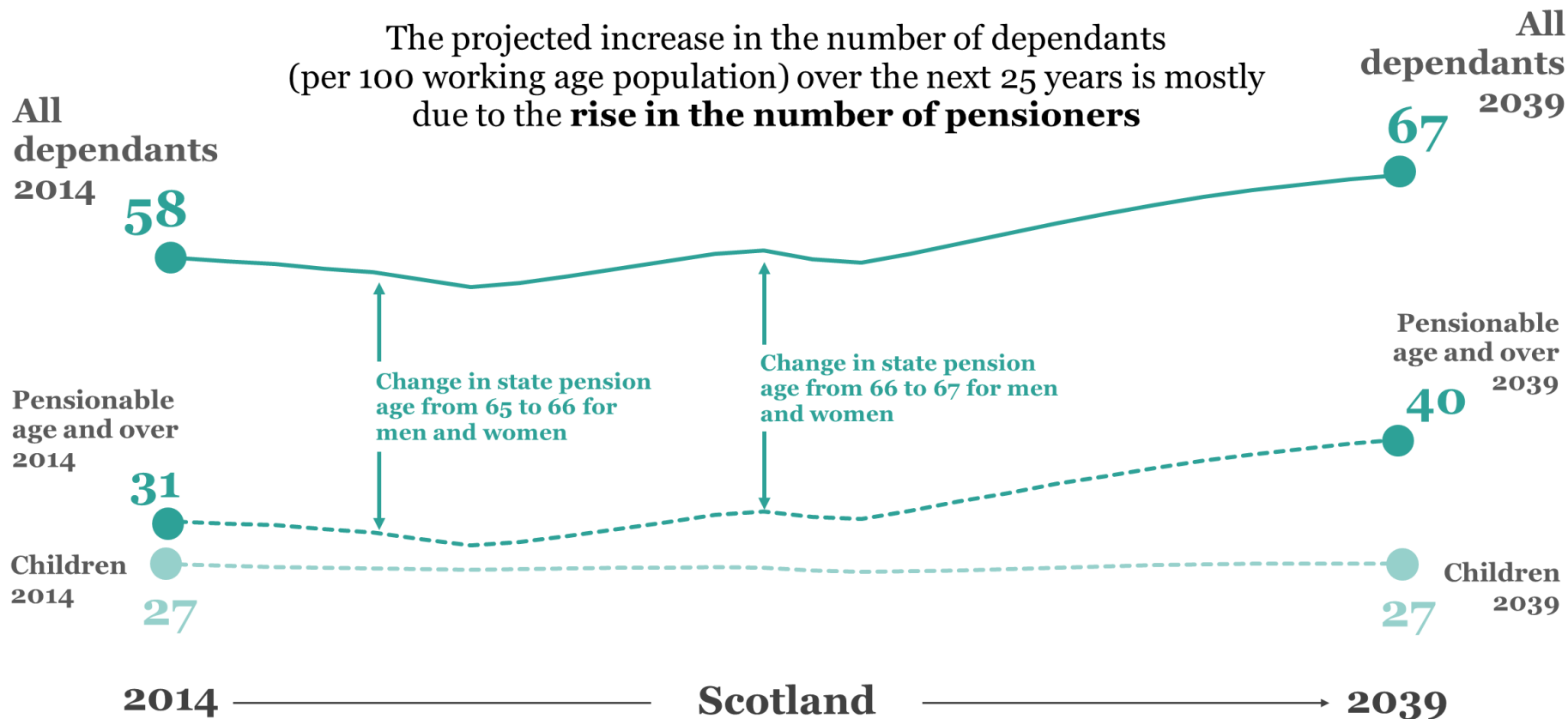


Female

Source: National Records of Scotland (NRS)

# Dependency ratio

The projected increase in the number of dependants (per 100 working age population) over the next 25 years is mostly due to the **rise in the number of pensioners**



## Note

These ratios should be interpreted with care. A simple interpretation is the number of persons "dependent" on the working age population, assuming that most older people and children are not economically active. The reality is of course much more complex.

Source: National Records of Scotland (NRS)

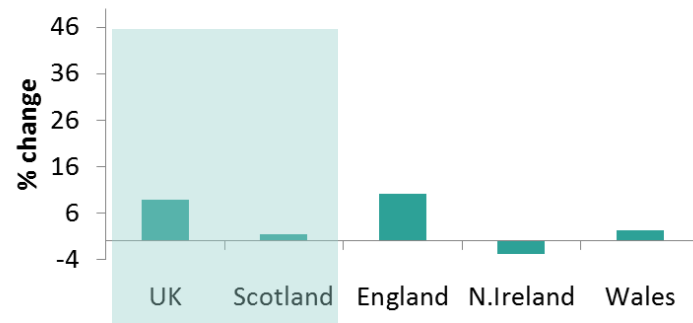
# Comparisons with other UK countries by 2039

The projected percentage population increase in the UK and constituent countries between **2014** and **2039**

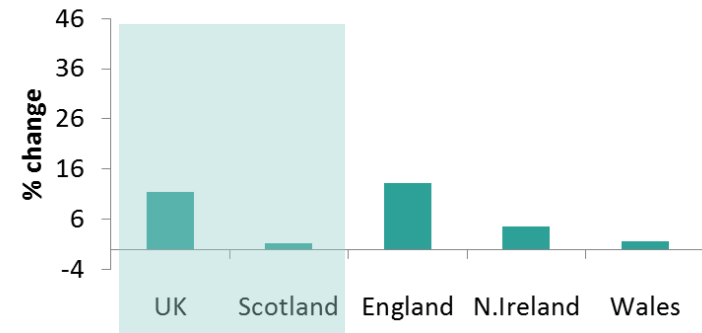


# Projected percentage change 2014 to 2039

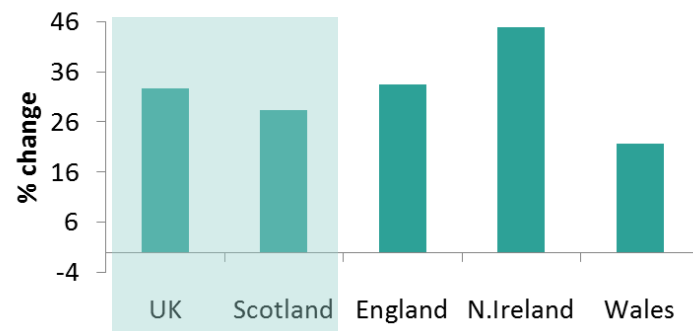
## Children



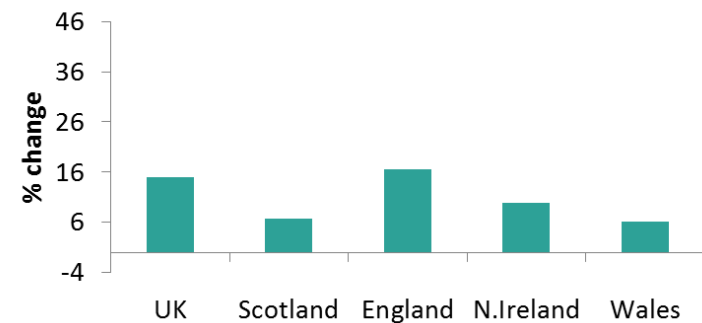
## Working age



## Pension age

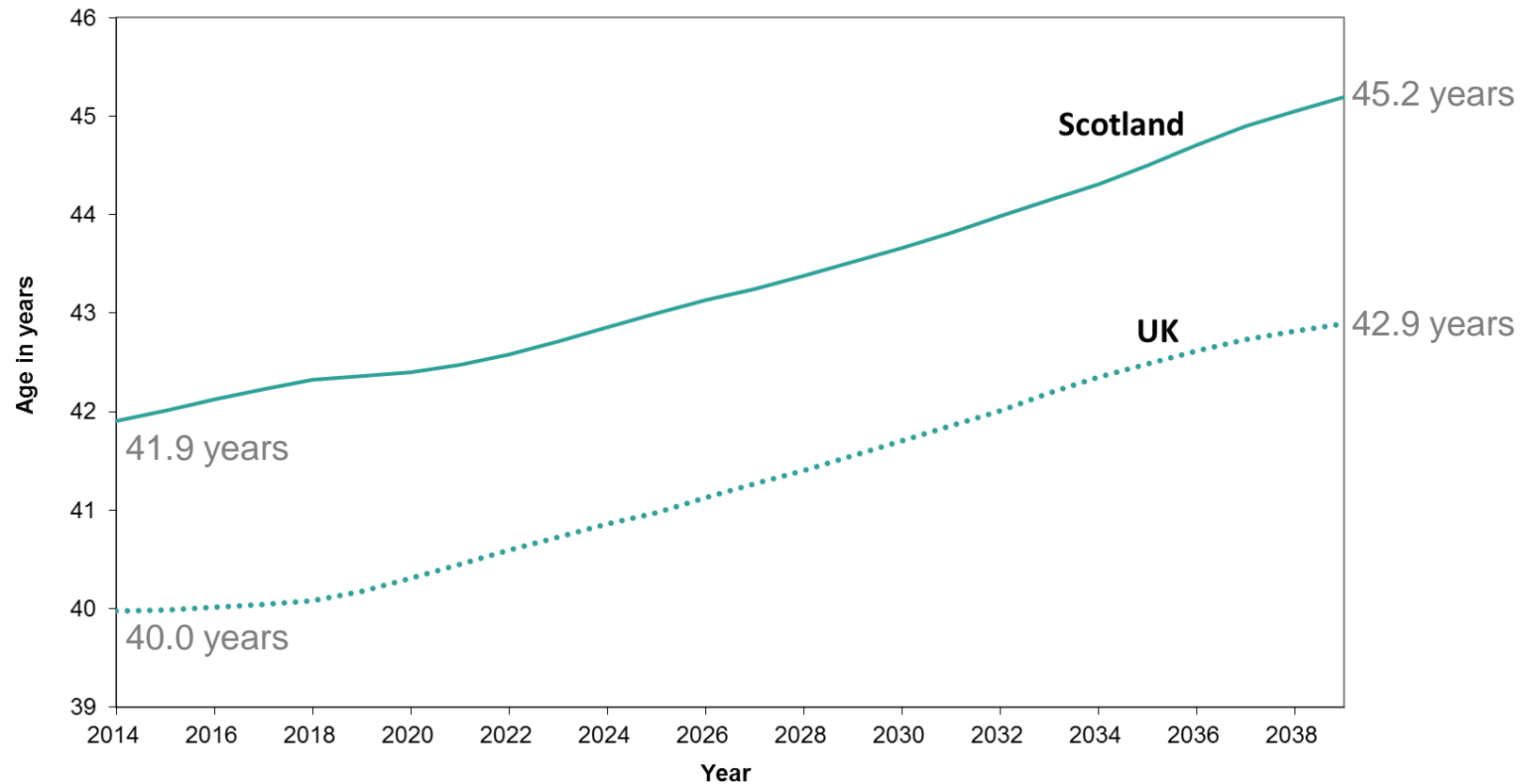


## Total population





# Median age



# Dependency ratios per 100 working age population

2014	UK	Scotland	England	N.Ireland	Wales
Overall	61	58	61	61	66
Pensioner	31	31	31	27	36
Children	30	27	31	34	30
2039	UK	Scotland	England	N.Ireland	Wales
Overall	67	67	66	69	73
Pensioner	37	40	36	38	43
Children	30	27	30	31	30

Different plausible assumptions about fertility, mortality and migration giving a more complete picture of what may happen in the future

# Variant projections

## Single component variants

- High migration
- High life expectancy
- High fertility

- Low migration
- Low Life expectancy
- Low fertility

## Special component variant

Zero net migration

## Combination component variants

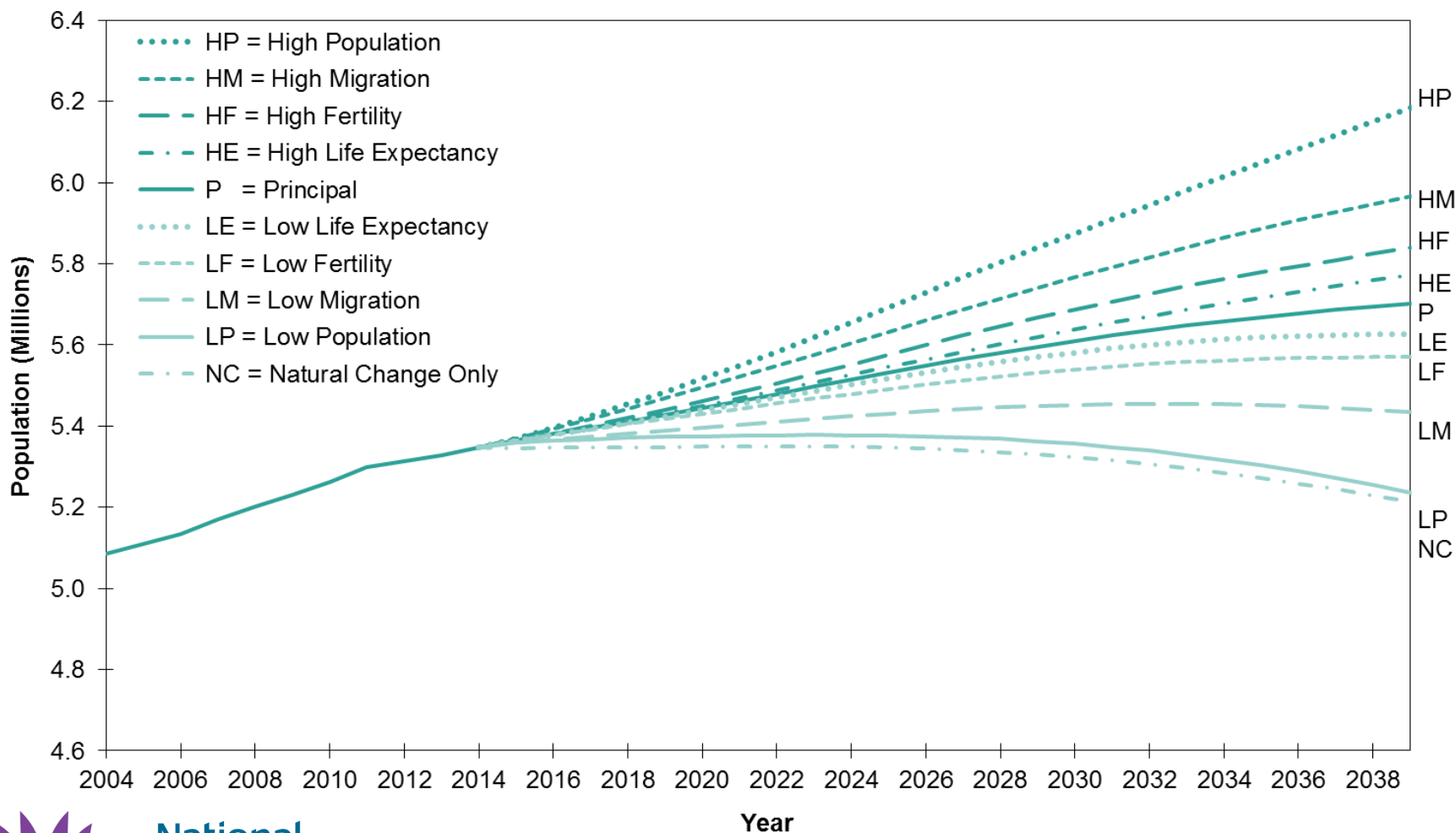
- High population

- Low population

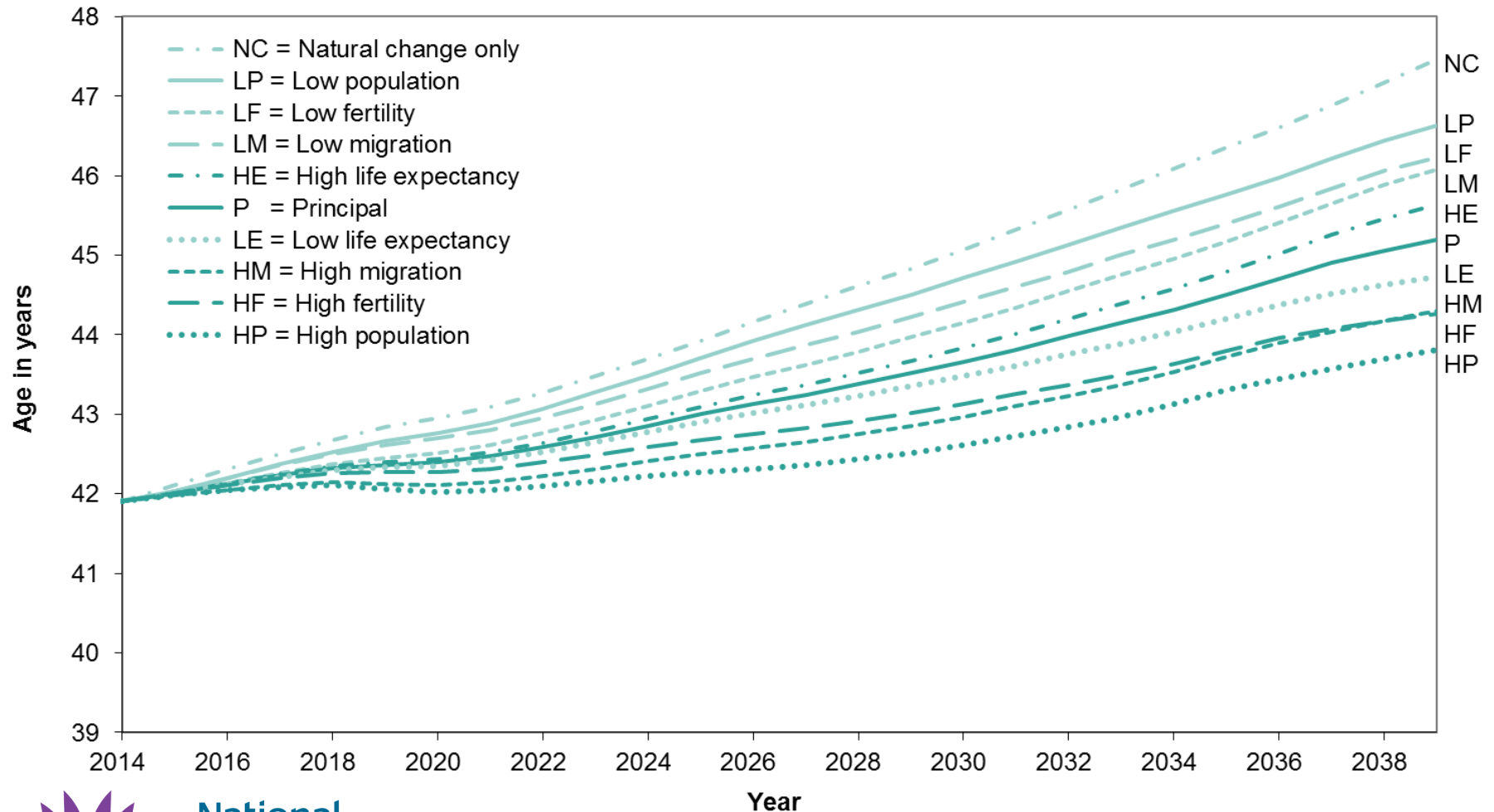
# Assumptions for the 2014-based population projections

	Assumptions	Long-term Fertility (Total Fertility Rate - TFR)	Life Expectancy Males (2039)	Life Expectancy Females (2039)	Net Migration (2039) (rounded to the nearest 100)
Standard variants	High variant	1.90	84.3	86.8	24,100
	<b>Principal</b>	<b>1.70</b>	<b>82.3</b>	<b>85.0</b>	<b>15,000</b>
	Low variant	1.50	80.2	83.1	5,900
Special case scenario	<b>Zero migration</b>	1.70	82.3	85.0	0

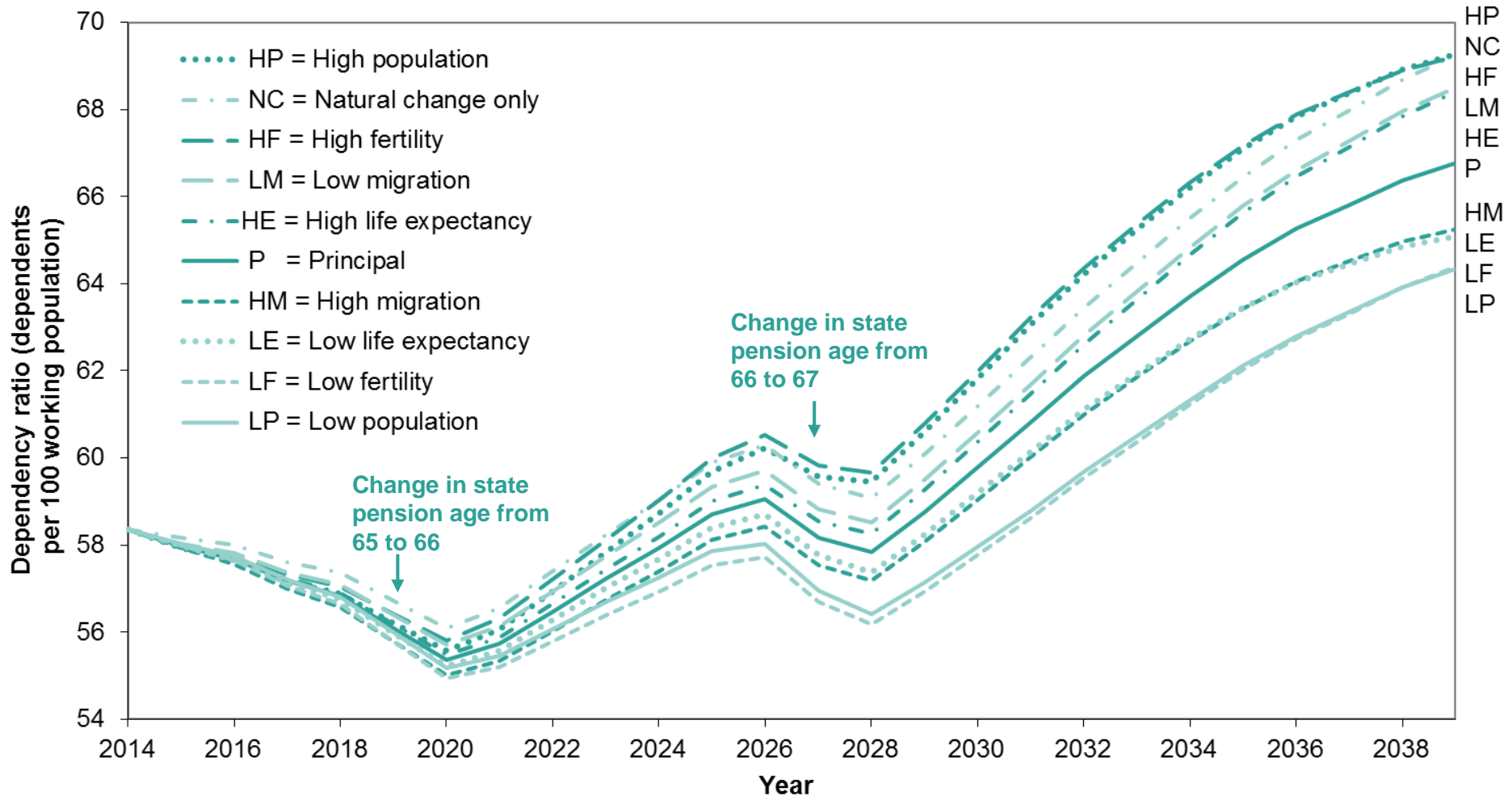
# Actual and projected total population of Scotland, under the 2014-based principal and selected variant projections, 2004-2039



# Change in average (median) age 2014-2039 (variant projections)



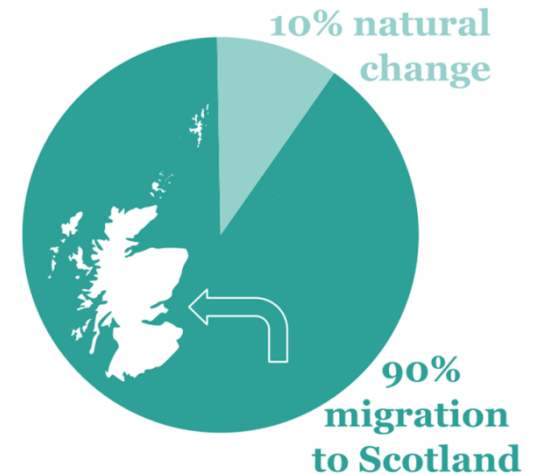
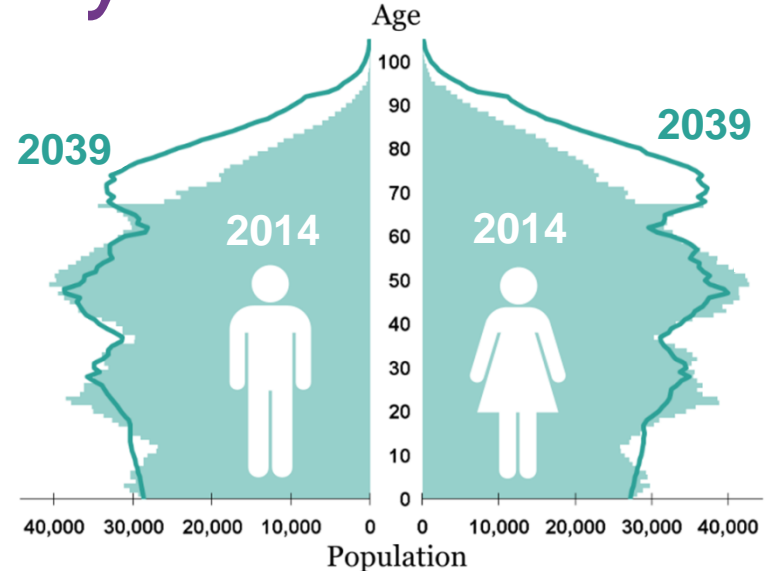
# Dependency ratio (variant projections )





# Summary

- Scotland's population to continue to increase
- Scotland's population to age over the next 25 years
- Net migration assumed to be the main contributor to population growth



# Sub National Population Projections review

- Using new methodology based on recommendations from academics
  - Moving from a single region model to a multi region model
  - Moving from using net migration assumptions to flows for international migration and applying rates for cross border and within Scotland migration
- Changes are being taken forward in consultation with the PAMS Projections Sub Group (PSG)

# International Migration

- International migration will be projected by performing time series analysis on historic totals to project future totals.
- A 5-year average of international migration estimates will be constrained to the projected totals to create age and sex distributions.
- The age and sex distributions will be constrained to the international migration for Scotland.

# Implications for the Consultation

- Modelling international migration and constraining to the national totals means:
  - The projected migration is more detailed than previous projections.
  - If we make changes as a result of the consultation then it will be to review the final model selected, not to adjust the numbers.
  - This is because any changes suggested by a Council have a knock-on effect for all other Councils.

# Proposed Outputs

- The new methodology allows for more detailed outputs.
- The 'Outputs Phase' will produce over 58,000 tables in 960 workbooks.
- We are currently considering the best way to disseminate these tables.

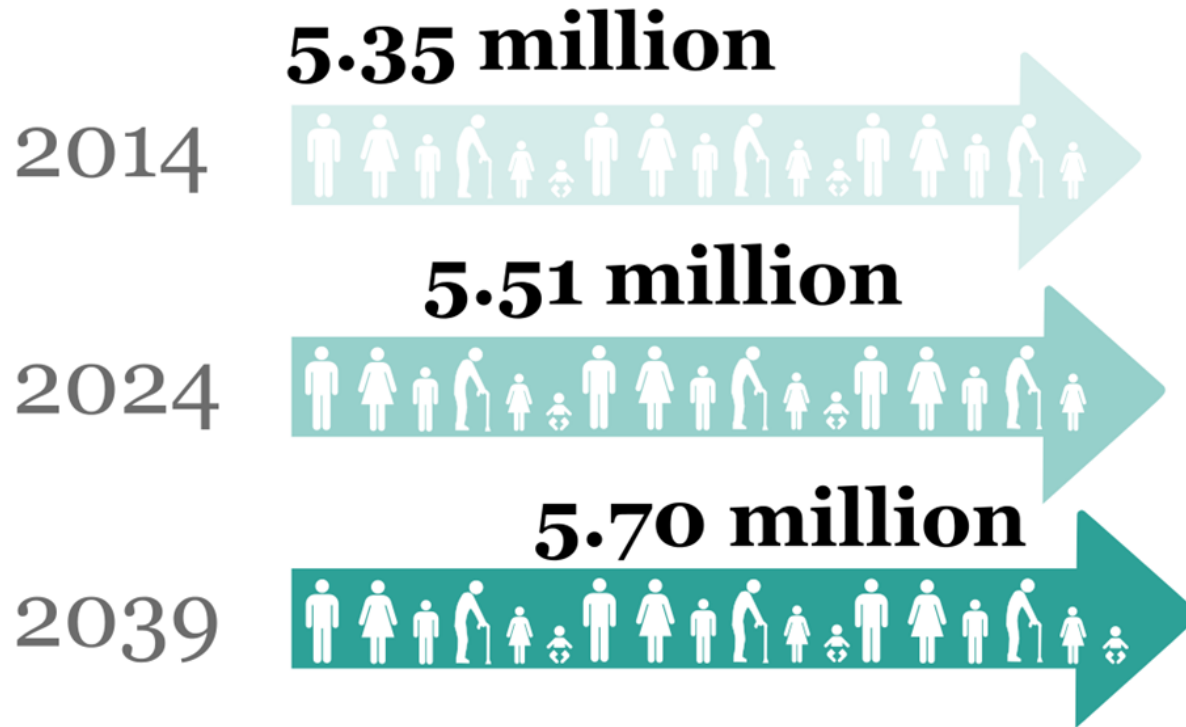
# Timescales

- Completion of the new system by the end of January 2016.
- Comparison paper of new and old system using 2012 data by the end of February 2016.
- PSG Subgroup meeting in February/March 2016.
- Consultation on international migration in February/March 2016.
- Publish new sub-national projections in June 2016.

# Sub-Council Area Population and Household Projections

- One-off project to develop methods and processes for producing small area projections for areas within Scotland's 32 council areas
- Consistent with NRS 2012-based council area projections
- Good progress being made, but more work than we expected
- Still aiming to publish March 2016

# Questions !





# Further information

- NRS website : [www.nrscotland.gov.uk](http://www.nrscotland.gov.uk)
- Census data : [www.scotlandscensus.gov.uk](http://www.scotlandscensus.gov.uk)  
Sign up there for our e-newsletter
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[statisticscustomerservices@nrscotland.gov.uk](mailto:statisticscustomerservices@nrscotland.gov.uk)
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